

In the Claims:

Please amend the Claims as follows (the changes in these Claims are shown with ~~strikethrough~~ for deleted matter and underlines for added matter). A complete listing of the claims are listed below with proper claim identifiers.

1. (Original) An organic solvent extraction mixture for the separation and purification of base metals from weakly acidic sulphate solutions which includes:

a. a first extractant, which is a substituted imidazole (Diagram 1) or benzimidazole (Diagram 2)

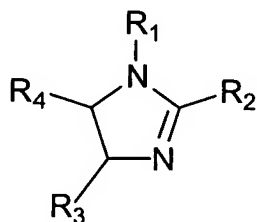


Diagram 1

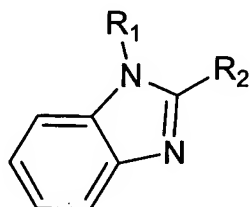


Diagram 2

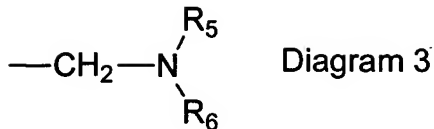
and wherein the substituents are:

R₁ = an organic group which has between 2 and 20 carbon atoms;

R₃ = a hydrogen atom or a short chain organic group with 1 or 2 carbon atoms;

R₄ = a hydrogen atom or a short chain organic group with 1 or 2 carbon atoms;

R₂ is a -methylene-1-pyrazole group, an imidazole based group, or a methylene-amino group as shown in Diagram 3



and wherein

R₅ = a hydrogen or a methyl group;

R₆ = a hydrogen or an aliphatic group containing between one and 10 carbon atoms; or

R₆ = a methylene-amino group with one of the substituents being a hydrogen or a methyl group and the other a hydrogen or an aliphatic group containing between one and 10 carbon atoms; or

R₆ = a -2-pyridine group, or

R₆ = a -methylene-1-pyrazole group, or

R₆ = a 2-methyl imidazole based group;

b. a second extractant which includes a non-selective strongly acidic sulphonic acid;

c. a modifier which is characterized by the presence of a sterically available oxygen or nitrogen atom with lone pairs of electrons; and

d. a diluent.

2. (Currently Amended) A mixture according to claim 1 wherein --R₆ is the a methylene-amino group ~~as shown in Diagram 3~~ CH₂-HN-CH₃.

3. (Original) A mixture according to claim 1 wherein the concentration of the first extractant is between 0.01 and 1.50 Molar.

4. (Original) A mixture according to claim 1 wherein the second extractant is a sulphonic acid (R-SO₃H) and wherein R is an aliphatic group, an aromatic organic group or a mixed group consisting of aliphatic and aromatic parts, with between 3 and 40 carbon atoms.

5. (Original) A mixture according to claim 1 wherein the second extractant is selected from di-nonyl naphthalene sulphonic acid (DNNS), di-dodecyl naphthalene

sulphonic acid, di-n-octyl methyl sulphonic acid and an alkyl substituted benzene sulphonic acid.

6. (Original) A mixture according to claim 4 wherein the concentration of the second extractant is between 0.001 to 1.0 Molar sulphonic acid.

7. (Original) A mixture according to claim 1 wherein the concentration of the modifier is between 10% and 70% of the mixture.

8. (Original) A mixture according to claim 1 wherein the diluent is selected from an aliphatic, aromatic or aliphatic aromatic mixture.

9. (Original) Use of the mixture of claim 1 which is carried out in the temperature range between 10° C. and 70° C. and a pH between 0 and 6.0.

10. (Original) Use according to claim 9 for the treatment of an aqueous pregnant feed solution.